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# Extractive Versus Productive Economy: A Case Study Comparison of Peru and South Korea

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## **Extractive Versus Productive Economy: A Case Study Comparison of Peru and South Korea**

**Rubén Berríos**

There are striking contrasts between a productive and an extractive economy. South Korea and Peru are used as examples. Korea is not a resource-rich country but has developed remarkably fast. Peru, on the other hand, is a resource-rich country but has shown uneven rates of growth and has had a lackluster development performance because it has relied on extractive industries that have brought boom and bust. Korea is a high performing economy that achieved high rates of growth implementing policies that emphasized productivity and promoted industrialization and free trade. Korea's success is explained in terms of its policies promoting the growth of private manufacturing industries, technological planning, strong support for education, investment initiatives, and socio-cultural factors. Peru, on the other hand, still suffers from structural weaknesses. This article calls for Peru to put in place a viable development model, invest in human capital, industrial development, and promote nontraditional exports.

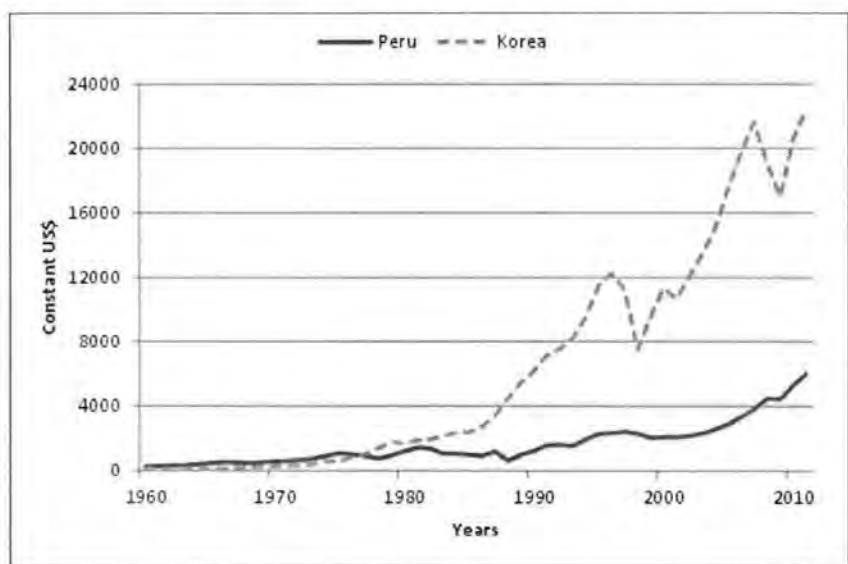
A priority of development is to promote sustained economic growth, achieve prosperity, and compete internationally. Many studies have shown that the best tool to combat poverty is to accelerate economic growth. Countries with positive income growth have experienced a decline in the proportion of people living in poverty. It is estimated that on average, with a 1% increase in GDP per capita, poverty is reduced by 7%. This paper argues that there are striking contrasts between a productive economy and an extractive economy. Some Asian countries such as the Republic of Korea (commonly known as South Korea) are not resource-rich countries but have developed remarkably fast. Peru, on the other hand, is a resource-rich country but has shown uneven rates of growth and has stagnated in its development efforts. This case study comparison of Peru and Korea attempts to show how the former has lagged behind while the latter has achieved rapid progress toward development.

South Korea is chosen as an example of a productive economy and Peru as an example of an extractive economy. Both countries share some broad common features but have followed different trajectories of development. The central argument is that Peru has had a lackluster development performance because it has relied on extractive industries that have generated insufficient employment and sluggish growth. Its development policies were often ineffective. Meanwhile Korea became a high performing economy that achieved high rates of growth by implementing the right policies that emphasized increases in productivity and promoted an outward-orientation to industrialization and trade.

### Two Paths Taken

Figure 1 shows the starting point of comparison between the countries based on GDP per capita since 1960. The initial conditions defined broadly (including per capita income levels and other quantitative characteristics) were similar, but they pursued somewhat different policies and achieved different economic outcomes. The figure shows that in 1960 Peru's GDP per capita was actually higher than Korea's. The latter was able to catch up by 1970. Korea's GDP per capita shows a steep upward trend while Peru's GDP per capita growth has remained flat for the past four decades. In a matter of 20 years Korea had surpassed not only Peru but the rest of Latin America.

**Figure 1: GDP Per Capita of Peru and Korea (Constant 2000 US\$)**



Source: World Development Indicators, World Bank

Peru's overall performance since the 1960s has been less dynamic and somewhat uneven. Per capita income growth remained relatively flat. During the 1980s Peru experienced the "lost decade" due to high levels of foreign debt and low levels of growth. However, in the period from 1960 to 1999, Korea had moved from being an agricultural nation to becoming a prominent new industrializing country (NIC). By the year 2000, Korea was ranked 12th in the world economy in terms of GDP. The contrast can be seen using the most common measures for income and output comparisons, the GDP, including average annual growth, GDP per capita, and GDP per capita growth. Countries with a high GDP per capita have a lot of physical and human capital that is organized using technological knowledge to be more productive. "High quality growth" can be defined as growth that is sustainable, brings lasting gains in employ-

ment and living standards, and reduces poverty. This has been achieved by Korea but not so much for Peru. These comparative figures are evident in Table 1

**Table 1: Basic Economic Indicators**

	GDP US\$ (millions)		Average Annual Growth (%)		Popu- lation (millions)	Popula- tion Growth		GNP Per capita	GDP Per capita	GDP per capita growth
	1970	2011	1990	2010	2011	80- 99	2000- 09	2009	2010	2000- 09
KOREA	252,622	1,116,247	9.4	6.2	48.4	1.5	0.3	27,100	29,004	3.8
PERU	32,802	176,662	-0.3	8.8	29.4	2.0	1.1	8,629	9,538	4.1

Sources: UNDP, Human Development Report, various years; UNESCO, Statistical Yearbook, various years; The World Bank, 2012

The argument that reliance on extractive industries is not necessarily conducive to economic growth has been made previously. Research on the subject has stressed that on average resource-rich countries have slower growth (Sachs & Warner, 1995, 2001; Auty, 2001). However, research by Davis (2009) and other studies show that the evidence is mixed regarding the relationship between the extractive intensity of economic activity and the level of economic growth. Davis claims that some economies with a substantial extractive sector have achieved higher levels of development. However, there is the recognition that extractive economies suffer from the erosion effect of resource wealth and the structural shift reduces manufacturing employment.

In order to transform a developing economy, it is necessary to set up the right mix of institutions and policies capable of generating economic success. Korea's pragmatic policy approach and the ability of the government to perform institutional, technical, administrative, and political functions created opportunities for economic development. Korea was able to sustain high levels of growth, high rates of investment, macroeconomic stability, an adequate regulatory system, a responsible political and entrepreneurial class, provide strong support for education to generate high levels of human capital, and incorporate technological innovation (Amsden, 1989; Breen, 1999; Koo, 1992; León, 2003; Song, 1997; Acemoglu & Robinson, 2012).

Also relevant for growth and development are factors such as securing private property rights, the degree of economic freedom and competitiveness, the degree of corruption, and the ease of doing business. These factors foster a better business environment. Table 2 shows that Korea is ranked very high in terms of global competitiveness. Korea is also ranked much higher than Peru in terms of economic freedom because of its more inclusive economic environment. The same is true for respect of property rights and the ease of doing business.



**Table 2: Comparative Business Indicators**

	Competitive Environment	Economic Freedom	Level of Corruption	Respect of Property Rights	Cost of Complying with Bureaucracy
	Out of 81 countries	Out of 156 countries	Out of 54 countries	Out of 129 countries	Out of 183 countries
KOREA	24th	31st	43rd	38th	8th
PERU	67th	42nd	80th	76th	41st

Sources: 1. The Global Economic Forum, Global Competitiveness Report, 2012; 2. The Heritage Foundation, Index of Economic Freedom, 2012; 3. Transparency International, Corruption Perception Index, 2012; 4. International Property Rights Index, 2012 Report; 5. The World Bank, Ease of Doing Business Rank, 2012.

### Degree of Comparison

Although Peru's geographic area is 12 times larger than Korea's (1,285,000 sq. km. vs. 99,000 sq. km.), the latter's population is almost twice as large (29 million vs. 49 million). Historically both countries had been colonized. Peru achieved independence from Spain in 1823 and Korea was liberated from Japanese imperial domination in 1945. In terms of resource endowment, Peru is rich in minerals, agricultural production, and fishing resources. Its exports consist mainly of minerals, agricultural products from the coastal region, and fish and fish products. Korea lacks such a rich natural resource base, but it has more human resources than Peru. Peru is more racially diverse while Korea is homogeneous. Both countries have open economies and rely heavily on external trade. Korea, however, has been more outward-oriented and has become a strong competitor in world markets of manufactured goods, automobiles, steel, and shipbuilding. On the relative importance of the public and private sectors, Korea has a larger private sector.

Both countries rapidly urbanized over the course of the past five decades. In 2010, 72% of Peru's population lived in urban centers while 82% of Korea's population was urban. In terms of occupational activity, both countries have seen the manufacturing and services sectors grow the fastest while the importance of agriculture as a source of labor has diminished. Korea rapidly accelerated the growth of manufacturing output and by 2010, manufacturing accounted for 45% of GDP. The Korean economy is now a predominantly industrial and service-oriented economy. For Peru, the composition of GDP for industry was only 30% (World Bank, 2012). A significant social byproduct of Korea's successful development is the rise of a large middle class that is enjoying a newfound consumerism. The same cannot be said of Peru, where the middle class is a small percentage of the population.

Both countries have also relied on foreign aid. Relative to the rest of Latin America, Peru has been a large recipient of foreign development assistance from rich countries for years. Korea received generous sums of aid particularly from the United States during the 1960s, but for the past two decades Korea has become a foreign aid donor.

Interestingly enough, Korea has been providing development assistance to Peru since the 1990s.

The "initial conditions" defined broadly include not only the factor endowments we alluded to but also the institutional and organizational factors. Both Korea and Peru started their post-war economic development with an inward-oriented strategy to industrialization. This is what is known as import substitution industrialization (ISI), which is a development strategy that governments adopted, where domestic production substitutes for some imported goods. ISI begins with the production of relatively simple non-durable consumer goods such as clothing, shoes, and canned goods. For the ISI strategy to work, the pattern of domestic production and exports must be altered and promoted by the state through the exclusion of foreign competition, bank credit, preferential rates for essential inputs, and specific tax exemptions (Cypher and Dietz, 2004).

### **Essential Characteristics of an Extractive Economy**

Extractive economies are those that physically remove resources from their environment primarily for exporting. Although there are potential economic benefits to resource extraction, there are also shortcomings. For instance, mining is assumed to be a powerful stimulus for the economy in generating foreign exchange earnings, but it is also relatively unstable owing to fluctuating commodity prices, the depletion of deposits, the impact of global competition, and frequent labor-management disputes. For many years in countries like Peru and Bolivia the mining sector has been the economic engine driving the rest of the economy.

Extractive industries can contribute significantly to a country's economic development by generating employment, foreign exchange, and government revenues. But they also can become a source of rent-seeking, can be poorly managed, and can result in excessive reliance on the extractive resource. In Peru's case, income resulting from unstable world prices has brought limited prosperity for the regions where the mines are located. A similar pattern is experienced in other sectors where lumber, fish, oil, and other commodities are exported usually raw or unfinished. The producing countries are denied the commodities' additional values, which in the end would benefit the core economies (Bunker, 1984; Liebenthal et al., 2005). However, in recent years the emergence of China has resulted in higher demand for commodities, which has led to a rise in commodity prices.

A key feature of extractive economies is their susceptibility to external shocks. Unfavorable price shifts lead to uneven terms of trade. Prebisch (1950) has warned that the specialization in primary goods, over time, leads to a deteriorating tendency on the terms of trade for primary producers relative to manufactured goods produced in industrialized nations. When this happens it triggers a decline in government revenues and the government is forced to seek foreign borrowing. Reliance on primary exports also makes the country more dependent because it misses the opportunity to diversify into more nontraditional goods with higher value added.

Rich natural resource endowment has been a blessing for some countries and did translate into increased prosperity (e.g. Australia, Canada, New Zealand, Norway). But

in many less developed countries (LDCs) rich in resources, it has in some cases become a "curse" (Sachs & Warner, 1995; Sachs, 2005; Davis & Tilton, 2005). Empirical evidence suggests that on average resource-abundant economies of the less developed world have not performed well relative to those countries that are resource-deficient (Auty, 2001).

Peru once had a silver and guano boom and "bonanza" development through resource extraction, but there has been a sequence of unsuccessful outcomes following every resource boom. Another case is the fishing industry (abundant in the 1950s and 60s) which suffered a precipitous decline as a result of climate change, over-fishing, and government policy failures. Schuldt (2005) has noted that the country's poverty is the consequence of its natural wealth. This is what some scholars term the paradox of plenty (Karl, 1997). But this is not something that is inevitable because development trajectories can be altered.

Peru has remained an extractive economy since the colonial period. The process of commodity extraction responded to international demand. But excessive demand at various points in time and a short-term profit mentality on the part of the domestic elite contributed to a depletion of resources. Furthermore, lack of adequate planning and vision distorted the structure of the economy and failed to bring about development (Morón & Sanborn, 2006; Schuldt, 2005). Increased dependence on export commodities has also set limitations on opportunities for technological innovation. Moreover, these raw commodities are likely to lose their utility when the extractive resource is depleted, when international demand changes, or when cheaper substitutes are found. This type of resource-dependent economy, also known as "enclave economy" has been well documented (Levin, 1960; Thorp & Bertram, 1978; Bunker, 1984). As an extractive economy, Peru's development performance based on Human Development Index and other socio-economic and business indicators so far has been disappointing.

As Bunker notes, "the crucial difference between production and extraction is that the dynamics of scale function inversely to the dynamics on the productive economies to which world trade connects them" (1984, p. 1056). In a productive economy the forces of production develop progressively because the unit cost of production tends to fall as the scale of production increases. However, extractive economies respond to increased external demand and tend to impoverish themselves by exploiting those resources beyond their capacity for regeneration, thereby forcing the per-unit cost of commodities to rise.

While two centuries ago natural resources might have been a source of wealth, today the wealth of nations comes mainly from ideas embedded in new technologies. Raw materials are no longer a guarantee to progress, and in fact, many cases show they are the road to failure. Nearly half a century ago raw materials constituted about 30% of the world's total output but today it is about 4%. Much of the world economy today is concentrated in services and manufacturing. At present a number of LDCs are negotiating free trade agreements and better commercial relations with the United States and Europe, but this means that these countries are investing their energy in trying to get better terms on this small slice of the world economy (Oppenheimer, 2005).



## The Development Experience

Peru over the past half a century has expanded its exports and diversified them, but it remains predominantly a primary commodity exporter. Despite its resources and aid received, Peru failed to attain development, has witnessed many failed projects, and has suffered from the symptoms of policy-induced distortions. At the end of the millennium, 43.3% of Peru's exports were primary products, while Korea's were only 1.3%. The expansion of Peru's primary exports in recent years has led to higher levels of economic growth but with increasing inequality.

Korea, on the other hand, was able to achieve exceptional growth and success in expanding manufacturing exports since the 1960s. The contrast in economic performance between South Korea and Peru is the most glaring after the first oil shock of 1973-74. Korea's real GDP expanded 8.9% per annum, compared to a mere 1% in Peru. Rapid economic growth was supported by a sharp expansion of exports that bolstered investment (Lin, 1988). By contrast, Peru's exports had a sluggish growth. It is only in recent years that Peru has posted higher levels of growth due to increased demand for commodities by countries like China. On the whole, Peru has had an erratic path to economic development and was at times plagued by balance of payments deficits, chronic inflation, and a growing foreign debt (Sheahan, 1999; Wise, 2003).

As development strategies, import substitution and export orientation are not necessarily mutually exclusive. Import substitution can be divided into an easy stage, where non-durable goods are produced, and a more advanced stage, where consumer durables and capital goods are produced. Export orientation also requires a stage of exporting manufactured products that is more labor intensive and a more advanced stage that requires more capital and is more technology-intensive (Chen, 1989; Cypher & Dietz 2004; Todaro & Smith, 2006). Korea went from the early stage of ISI to export substitution. The policy change was aimed at promoting export incentives. This was accomplished with the devaluation of the *won*, restrictions on imports, tariffs, and tax concessions on inputs by exporting firms, and export credit subsidies. By 1980, about one-third of Korea's exports were made up of manufactured exports. Korea was able to move rapidly from easy import-substitution industrialization strategy in the beginning of the 1960s into a stage of export substitution. Peru, on the other hand, became stuck at an intermediate point and faced setbacks on the more capital-intensive industries (Beaulne, 1975; Pease, 1981; Wise, 2003).

Korean export expansion thrived on its industrial efficiency. Peru, on the other hand, lacked political continuity and the necessary policy reforms to advance industrial development. Korea generated an extensive system of export incentives that were extended over the years. Although Peru did promote nontraditional exports in the 1970s and 80s, the incentives system was inconsistent and at times biased against exports. Korea's efforts were successful because once economic reforms were implemented they were fully supported by successive policy makers and the direction of reforms did not change over time. By contrast, policy reform in Peru fluctuated and there was a lack of consensus leading to policy shifts with subsequent administrations (Morón & Sanborn, 2006; Wise, 2003).



As a late industrializer there was not much state-sponsored industrial strategy in Peru until the 1960s, and this was mostly an export-supporting activity influenced by foreign capital. During this period Peru was a primary exporter and was in the consumer durable stage of ISI relying on protectionism (Beaulne, 1975). The state was passively involved in increasing its role in the economy. The National Planning Institute (INP) was created in 1962. Although Peru's economy became increasingly dependent on fishmeal and copper as the biggest foreign exchange earners, the manufacturing sector was growing rapidly and by 1965 it came to account for 20% of GDP. In terms of export growth, manufacturing was only second to fishmeal. But behind this, the ISI drive had its classic pitfalls. For instance, over half of the output was under foreign control, one-fourth of it was related to the processing of primary products, and a significant portion of production was assembly operations for foreign firms (Wise, 2003).

During the late 1960s and early '70s Peru assumed a more conscious effort to industrialize. The state intervened more actively in the economy. This was evident with the nationalization of basic industries, the creation of the Ministry of Industry, and the passing of the General Law of Industry in 1970. Although priority was given to local industry the state-sponsored model ran out of steam quickly. In 1975 there was a retreat and by 1980 the same old politicians representing the Lima elite were back in power promoting a variation of a more market based approach without much government involvement.

In Peru, as in many countries in Latin America, protection was prolonged rather than phased out. Easy ISI should be seen simply as a first step on the path to industrialization. But industrialization must go beyond just being internally oriented. Korea was able to successfully follow the sequence from easy ISI to export substitution. It was able to reduce and overcome some of its problems through learning-by-doing. As the process evolved there were managerial improvements, technological adaptation, and improvements in human capital. The increasing share of Korea's manufacturing exports, over time, reflect the government's conscious effort to promote exports (Amsden, 1989; Cypher & Dietz, 2004).

Peru also might have benefited from large amounts of development assistance over the past 50 years, but its social indicators are very disappointing. Although education is mandatory and UNESCO statistics show that 100% school enrollment has been achieved, the average level of education is about third grade. The imbalance of economic growth and social development is what prompts us to label this "growth without development." Peru provides a textbook case of a society in which the elite has not been very supportive of human capital investment. As a result, Peru remains a profoundly unequal society. While periods of primary-export booms generated wealth for a small group, these elites were resistant to reinvesting the benefits of such bonanzas (Morón & Sanborn, 2006).

Korea, on the other hand, has invested in improving the quality of education. High quality education has improved the ability of its work force to perform effectively. Recent studies indicate that Korea ranks high in the level of training and performance of students in math and science, even higher than the United States and other developed countries. Data from the Organization of Economic Development (OECD) (2011, p. 129) indicate that Korea ranks fifth in the world in research spending as a percentage

of GDP (3.36%) and is fourth in the world in the percentage of 24 year-olds with science degrees (OECD, 2009, p. 179). See Table 3. Many economists have emphasized that technology is perhaps the single most important factor in generating growth and spreading prosperity. Most LDCs, however, lag behind and do not have the technological capacity to increase productivity. The application of new techniques in the production process requires engineers and a work force with proper training, but this is in short supply in many LDCs.

Another explanation of Peru's underperformance is the government's failure to steer the economy in a more pragmatic development path by generating the proper incentives. Most administrations did not have a clear plan or were unable to implement one. Most if not all tolerated corruption, did not create an environment conducive to investment, maintained a judicial system that was weak and ineffective, and devoted little attention to developing a greater endogenous technological capacity. Peru's poor ratings on the Transparency International Corruption Perception Index (Table 2) and the World Bank's Ease of Doing Business (Table 2) make clear the government's failure to create a transparent, efficient system for business.

World Bank data indicate that countries that are more corrupt have much lower per capita GDP. Peru's performance in this area has been much lower than Korea's. Another problem is the weak judicial system, which in Peru's case is of low quality and not reliable. Lawsuits can take many years to be resolved. A good legal system facilitates contracts and protects private parties. Finally, the ease to do business is important. In Peru formal businesses suffer from excessive red tape. This is one reason for the existence of a large "informal" sector in Peru. The World Bank estimates that in Peru starting a business takes 72 days and 32.5% of income per capita. This means that even before a business is begun, a Peruvian entrepreneur must invest extensively with government bureaucracy.

Peru has the natural resources but lacks the administrative and productive capacity. Present and former governments have lacked organizational autonomy, have managed the economy poorly, and have lacked a clear long-term vision of national objectives. They also failed to take advantage of crucial junctures and missed opportunities when growth was in a boom cycle. Social inequality still hampers the electoral process, and therefore, democracy itself. As Morón and Sanborn (2006) note, Peru has been hampered by a lack of clear objectives and the inability to implement a sustained development approach. Peru represents a paradox. Its economy has grown for much of the last 50 years. It has even entered an expansionary cycle for the past 15 years but has not experienced a full recovery in that expansionary cycle. This means that there has been some gain in employment opportunities and income inequality has only slightly improved. Today, in many respects, it is cheaper to import than to produce domestically in Peru. This has, in some sense, generated a process of de-industrialization due to the lack of proper incentives.

Can Peru realistically take advantage of globalization? De Rivero (2001) recounts how in 1967 he represented Peru in the Kennedy Round of negotiations under the General Agreement on Tariffs and Trade (GATT). At the time Peru was a major producer of copper, lead, zinc, fishmeal, cotton, and sugar. Twenty years later as a senior diplomat, he also took part in the Uruguay Round negotiations under GATT. But by then trade negotiations centered on manufacturers with high technology content and trade in

services. He notes that the content of Peru's exports had remained the same. With no improvement in technological development, the country was virtually left sitting on the sidelines of world trade negotiations.

What are, then, the possibilities of generating a cohesive collective project aimed at increasing export capacity? Peru's Ministry of Trade, for instance, was only created in 2002 and it is only in recent years that Peru has signed free trade agreements with the United States, China, and Canada. Peruvian authorities have invested more effort in diplomacy rather than in studying how to compete in world markets. To this day there is no strong desire or consensus in policy decision-making aimed at a sustained national development strategy. This is an important issue if a country like Peru is to drastically reduce poverty and become more prosperous.

### **Korea vs. Peru**

Korea outperforms Peru on nearly every type of economic and social indicator. Over a period of three decades Korea's economy grew at a rapid pace from year to year. Its GDP grew from \$2.3 billion in 1965 to \$442 billion in 1997. Per capita income during this period rose exponentially (Breen, 1999). Korea's per capita GDP is now three times that of Peru's. Lewis notes that "in 1970, Korea's GDP per capita was \$2,500 in today's dollars. In 1995, it was \$12,600, or five times higher. It took the U.S. almost a hundred years (1857-1954) to cover the same ground" (2004, p. 105). In 2003, Korea's per capita GDP was over \$15,000 (ADB, 2004) and in 2010 it had reached \$29,000 (see Table 1). Tables 3a & b, which show the United Nation's Human Development Index, indicate that Korea outperforms Peru by a large margin, whether it is agricultural productivity, life expectancy, education, research, and development, and in the number of scientists and engineers. At the pace Korea was moving, it had reached advanced country status by 1990. In 1996, Korea joined the Organization of Economic Cooperation & Development (OECD), the club of high-income countries.

Industrialization can be funded by extractive resources (mineral and agricultural), but resource-poor countries do not have this option, and must instead, as Ranis says, "shift their attention to the development of their human resources" that is, emphasize education and training to raise productivity (1996, p. 156). Korea was able to gradually assimilate industrial and information technologies in the 1970s and 80s, but during those years Peru's economy stagnated (Ranis, 1990). The technological gap is evident today. Tables 3a&b show that Korea spends much more on education, research and development, and has an impressive number of scientists and engineers.



**Table 3a: Human Development Indicators**

	Gini Index	Agric productivity per worker	Gross Domestic Investment as % of GDP		Genuine Domestic Saving as % of GDP	Adult literacy %	Mean yrs of schooling	Public expenditure on education (\$ billion)
	1998	2010	1990	2010	1998	2007	2011	2009
KOREA	31.6	19,807	38	29	25.9	1	11.6	5
PERU	49.1 (2009)	1,607	21	25	11.1	9	8.7	2.7

**Table 3b: Human Development Indicators**

	Expenditure on health as % of GDP	Life expectancy		PCs per 1000 people	R & D expenditures as % of GDP	Scientists & Engineers in R & D	Motor vehicles per 1000 people	HDI rank	
	2009	2000	2011	2000	2010	2007	2009	2001	2011
KOREA	5	73	81.8	405	3.74	2,319	267	30	15
PERU	2.7	69	74	41	0.15 (2004)	239	41	80	80

Source: UNDP, *Human Development Report*, various years; UNESCO, *Statistical Yearbook*, various years; The World Bank, 2012

Peru and Korea were at one time engaged in an easy import substitution strategy, with emphasis on consumer goods geared for the domestic market. This required government intervention and entailed protecting infant industries, relying on overvalued exchange rates, and maintaining low interest rates. Lacking the resource base Korea was forced to export. Korea then successfully shifted toward easy export substitution, exporting nondurable consumer goods. Raising exports accelerated the pace of industrialization. As Korean exports became more competitive it shifted to export promotion by exporting more sophisticated manufactured goods that had a higher content of technology, particularly in engineering and electronics. This is evident in Table 4, which shows the rapid growth of exports for Korea. Peru, on the other hand, tried to proceed from easy ISI to secondary or vertical ISI, skipping export substitution and ran into difficulties.

**Table 4: External Orientation Ratios (Exports/GDP in %)**

	1950	1960	1970	1980	1990
Colombia	10.9	15.7	14.6	16.3	18.9
Peru	20.7	24.2	19.7	22.2	12.5
Taiwan	10.1	11.1	29.6	52.2	60.6
Korea	2.1	3.3	14.3	37.7	40.7

Source: IMF, *International Financial Statistics*, various years



Korea's economic success has much to do with its institutions that encouraged investment, the transfer of technology, industrialization, and trade. These institutions include educational, political, judicial, and economic systems. A critical issue for LDCs is how to enforce the rules for the market to operate more efficiently, ensuring that contracts are upheld, individual property rights enforced, and that economic transactions are done in a transparent way. Without property rights there are no proper incentives to invest. Economists have also linked rapid economic growth to free and open institutions that provide the right incentives.

### Korea's Success Story

The Korea case helps us understand how a country can emerge from a group of poor countries and become prosperous. During the 1960s Korea's approach was initially state-led leading to a strong collaboration between business and government. The state aggressively promoted exports through special incentives. Initially, labor-intensive manufacturers dominated exports but later there was industrial diversification and upgrading to make exports internationally more competitive (Amsden, 1989). Policy choices taken by Korea were properly implemented, adequately monitored, and achieved the desired results. In Korea subsequent administrations emphasized continuity in the policy that was central to the export-led strategy. Price stability also helped facilitate greater rates of saving and investment. The resulting outcome was an acceleration of economic growth and an increase in labor productivity in manufacturing (Lin, 1988).

Korea shows that rapid catch-up can be achieved through key ingredients to propel growth. Aggressive trade-oriented policies and improved opportunities for investment were important. Korea invested one-third of its GDP to achieve high rates of growth. As Haggard (1990) puts it, Korea's turn to export-led was "state-led." The state created the supportive measures and mechanisms to work closely with the private sector. It created credit incentives to exporters, provided technological assistance, and even marketing (Amsden, 1989; Bradford, 1986; Singh, 1993; Song, 1997).

The Korean government targeted "strategic" manufacturing industries. The plan was based on the notion that government could accelerate development by nurturing favored industries. In this sense, Korea has followed the Japanese model. An important aspect of the policy was the protection of these industries from foreign competition—the "infant" industry argument. The protection is needed because an infant industry is not able to compete against imports from more developed countries.

The success of Korea is also partly due to U.S. assistance. The Korean War in the early 1950s left a divided Korea. The outcome became a symbol of the Cold War. The United States remained committed and aimed at turning South Korea into a modern society based on the Western model. The United States sought success in Korea because it would prove to the world the superiority of its approach to development. According to Ekbladh, "by 1980, the Republic of Korea had received \$6 billion in non-military aid from the United States, and much of it during 20 years of intense effort in South Korea between 1948 and 1965" (2004, p. 12). The United States played a key

role in post-war relief and laid the foundation for nation building. Korea launched land reform and an industrial development strategy.

The Vietnam War in the 1960s was a big boost for South Korea. General Park Chung-hee committed two divisions of troops to fight in Vietnam alongside the Americans. The United States not only provided aid but it also awarded military contracts to Korean *chaebols* (corporate conglomerates). During the peak of the war, 94% of Korean steel exports as well as a significant amount of machinery and chemicals went to the United States (Ekblad, 2004).

One factor often overlooked is that high rates of growth were achieved in a Korea under an authoritarian, autocratic, and centralized rule. Washington was willing to overlook this approach that marked succeeding regimes for three decades as long as it could push its own agenda. The foundation of an export-oriented economy was laid by the government of General Park Chung-hee, beginning with textiles and light industry. He was determined to promote its heavy industry (steel, automobiles, ship-building, and chemicals). First, he found willing partners in South Korea's business class and then he attracted foreign direct investment, particularly from Japan. The government also made strong efforts to create an attractive environment for foreign manufacturers that made a significant contribution to the country's export growth. All of this, in conjunction with the appropriate economic policies, made it possible to pursue a more aggressive development strategy.

By the late 60s, Korea had "graduated" and was no longer reliant on U.S. aid, even if Korea continued to receive economic favors from the United States in the form of loans and other guarantees (Stover, 1986). It was only in the 1980s that Korea moved to democratic rule. Korea's success is partly attributed to American aid, a strong authoritarian state that kept the lid on labor demands, and the extraordinary perseverance and initiative of the Korean people.

## Conclusion

Productivity is a measure of efficiency in the use of capital and labor resources in the production process. Productivity is critical to a country's international competitiveness and its standard of living. Increasing productivity and efficiency can be achieved through human resource development by enhancing the skills and education of the labor force, investing in physical capital, improving management and organizational techniques, and upgrading the domestic technological capability. In addition, there also must be institutional improvements as well as the promotion of a capital market and of trade policies, adequate management of macroeconomic policies, and a stable government.

Korea belongs to a small group of countries that have achieved spectacular success in expanding manufactured exports since the 1960s. Peru, on the other hand, has run into difficulties. Korea was able to move quickly from the simple type of manufacturing to a more capital-intensive method and with greater technological content to spearhead rapid industrialization (Amden, 1989; Lal & Myint, 1996). This process was more difficult in Peru because of erratic political development, inappropriate macroeconomic policies, and weak institutions.

Over the past five decades Peru has lacked political continuity and the correct policy reforms to propel the economy to sustained growth. Explanations of Korea's success lie mainly on the adoption of a coherent strategy of promoting growth industries, economic and technological planning, strong support for education, investment incentives, industrial restructuring, and the strong push for manufactured exports. An important difference with a country like Peru, which experienced faltering growth, was macroeconomic management (Sachs, 2005; Lin, 1988; Ranis, 1996; Singh, 1993). This implies lack of macroeconomic discipline, and above all, policy continuity. Peru's macroeconomic policy shifted between strong state intervention and economic liberalism depending on which government was in office.

Explanations on Korea's success have often emphasized its free market-oriented policies stressing private sector development and its outward-oriented strategy. But what is often overlooked is the government-led push for growth. The Korean government implemented an ISI strategy using high levels of protection but soon switched to export promotion. The government assisted in the process, subsidized credit, provided tax incentives, and depreciated its currency. Much of Latin America, on the other hand, was more concerned with ISI than with export promotion.

Other explanations stress the socio-cultural factors such as the Confucian values: strong work ethic, loyalty, self-discipline of the labor force, and thriftiness (Koo, 1992). The political explanation stresses the presence of a strong autocratic state that provided a stable environment as well as the role of government intervention to shape policies. Finally, U.S. economic assistance to Korea in the form of credits and facilitating its market to Korean exports also played an important role.

Peru's development conundrum has been its inability to maintain sustained economic growth. Peru's economy still suffers from structural weaknesses. Peru has had spurts of growth but this has been mainly resource-oriented. A constant problem has been its enduring poverty and inequality as well as high levels of corruption. This remains the main contradiction, that Peru is a country rich in natural resources but faces so much human misery. Various studies on development remind us that widespread poverty, inequality, and corruption are a drag on growth and development. In terms of management, many have voiced that Peru is a country without direction, no planning to speak of, and the government and its people seem to be "disengaged" (Schuldt, 2005). Sustained development has much to do with maintaining economic discipline, creating the right incentives and maintaining policy continuity, generating political and judicial reform, having an active social policy, and promoting investor confidence.

Peru's economy has remained dependent on an erratic course of traditional exports. The industrial sector has lacked competitive strength due to high costs, technological weakness, and lack of skilled labor (Sheahan, 1999). Although nontraditional exports have risen in recent years, the industrial sector has been slow in raising productivity and has not achieved much capacity to compete in global markets. As long as governments in office remain mainly concerned with short-term solutions to long-term problems, Peru will continue to face stumbling blocks. The country still lacks a viable development model and a coherent trade strategy to compete globally. Korea's success serves as a meaningful lesson that its path to development has much to teach about failed policies in countries like Peru.

## References

- Acemoglu, D., & Robinson, J. A. (2012). *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York, NY: Crown Business.
- Amsden, A. (1989). *Asia's Next Giant: South Korea and Late Industrialization*. New York, NY: Oxford University Press.
- Asian Development Bank (2004). *Key Economic Indicators 2004*. Manila, Philippines.
- Auty, R. M. (Ed). (1975). *Resource Abundance and Economic Development*. Oxford, UK: Oxford University Press.
- Beaulne, M. (1975). *Industrialización por sustitución de importaciones: Perú 1958-1969*. Lima, Peru: Escuela de Administración de Negocios para Graduados.
- Bradford, C. (1986). East Asian 'Models': Myths and Lessons. In J. P. Lewis & V. Kallab (Eds.), *Development Strategies Reconsidered* (p.115-128). New Brunswick, NJ: Transaction Books.
- Bunker, S. G. (1984). Modes of Extraction, Unequal Exchange, and the Progressive Underdevelopment of an Extreme Periphery: The Brazilian Amazon, 1600-1980. *American Journal of Sociology*, (Vol. 89, No. 5), 1017-1064.
- Breen, M. (1999). The Koreans: Who are they? What they Want, Where their Future Lies? New York, NY: St. Martin's Press.
- Chen, E. K.Y. (1989). Trade Policy in Asia. In S. Naya, et al. (Eds.), *Lessons in Development: A Comparative Study of Asia and Latin America* (pp. 55-76). San Francisco, CA: International Center for Economic Growth.
- Cypher, J. M., & Dietz, J. L. (2004). *The Process of Economic Development* (2nd ed.). London, England: Routledge.
- Davis, G. A. (2009). Extractive Economies, Growth and the Poor. In J. Richards (Ed.), *Mining, Society and a Sustainable World* (pp. 37-60). Berlin, Germany: Springer.
- Davis, G. A., & Tilton, J. E. (2005). The Resource Curse. *Natural Resources Forum*, 29 (3), 233-242.
- De Rivero, O. (2001). *El mito del desarrollo*. Lima, Peru: Fondo de Cultura Económica.
- Easterly, W. (2001). *The Elusive Quest for Growth*. Cambridge, MA: MIT Press.
- Ekbladh, D. (2004). How to Build a Nation. *The Wilson Quarterly*, 28 (1), 12-20.
- Haggard, S. (1990). Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries. Ithaca, NY: Cornell University Press.
- Karl, T. L. (1997). *The Paradox of Plenty: Oil Booms and Petro States*. Berkeley, CA: University of California Press.
- Koo, B. H. (1996). International Center for Economic Growth, Occasional Paper #22, San Francisco, California, 1992.
- Lal, D., & Myint, H. (Eds.). (1996). *The Political Economy of Poverty, Equity and Growth*. New York, NY: Oxford University Press.
- León, J. L. (2006). The Role of the State in Economic Development: Korea and Mexico. In P. H. Smith, K. Horisaka, & S. Nishijima (Eds.), *East Asia and Latin America: The Unlikely Alliance* (pp. 130-156). Lanham, MD: Rowman & Littlefield.
- Levin, J. V. (1960). *Export Economies: Their Pattern of Development in Historical Perspective*. Cambridge, MA: Harvard University Press.
- Lewis, W. W. (2004). *The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability*. Chicago, IL: University of Chicago Press.
- Liebenthal et al. (2005). *Extractive Industries and Sustainable Development*. Washington, D.C.: World Bank.
- Lin, C. (1988). East Asia and Latin America as Contrasting Models. *Economic Development and Cultural Change*, 36(3), 153-197.



- Morón, E., & Sanborn, C. (2006). *The Pitfalls of Policymaking in Peru: Actors, Institutions and Rules of the Game*. Inter-American Development Bank Research Network. Working Paper #R-5 II.
- OECD. (2009). *Factbook*. Paris, France: Organization of Economic Cooperation and Development.
- Oppenheimer, A. (2005). *Cuentos chinos*. Buenos Aires, Argentina: Editorial Sudamericana.
- Pease Garcia, H., et.al. (1981). *Estrategias y políticas de industrialización*. Lima, Peru: DESCO.
- Prebisch, R. (1962). The Economic Development of Latin America and its Principal Problems. *Economic Bulletin for Latin America*, 7(1), 1950. (Original work published 1950)
- Ranis, G. (1990). Asian and Latin American Experience: Lessons for Africa. *Journal of International Development*, 2(2), pp. 154-164.
- Ranis, G. (1996). Why Latin America Borrowed When East Asia Exported. In R. Salvucci (Ed.), *Latin America and the World Economy*. Washington, D.C.: Heath.
- Sachs, J. (2005). *The End of Poverty: Economic Possibilities of our Time*. New York, NY: The Penguin Press.
- Sachs, J., & Warner, A. (2001). The Curse of Natural Resources. *European Economic Review*, 45.
- Sachs, J., & Warner, A. (1995). Natural Resource Abundance and Economic Growth. HIID Development Discussion Paper #517a. Harvard University.
- Schuldt, J. (2005). *Somos pobre porque somos ricos? Recursos naturales, tecnología y globalización*. Lima, Peru: Fondo Editorial del Congreso de la República.
- Sheahan, J. (1999). *Searching for a Better Society: The Peruvian Economy from 1950*. University Park, PA: Pennsylvania State University Press.
- Singh, A. (1993). Asian Economic Success and Latin American Failure in the 1980s: New Analyses and Future Implications. *International Review of Applied Economics*, 7(3), pp267-289.
- Song, B. (1997). *The Rise of the Korean Economy*. New York, NY: Oxford University Press.
- Stover, W. A. (1986). Foreign Investment as an Aid in Moving from Least Developed to Newly Industrializing: A Study on Korea. *Journal of Developing Areas*, 20(2), 223-248.
- Thorp, R., & Bertram, G. (1978). *Peru 1890-1977: Growth and Policy in an Open Economy*. New York, NY: Columbia University Press.
- Todaro, M., & Smith, S. (2006). *Economic Development*, (9th ed.). Boston, MA: Addison Wesley.
- UNDP. (2004). *Human Development Report*. New York, NY: United Nations Development Program.
- Wise, C. (2003). *Reinventing the State: Economic Strategy and Institutional Change in Peru*. Ann Arbor, MI: University of Michigan Press.
- World Bank. (2012). *World Development Indicators 2012*. Washington, D.C.: The World Bank.